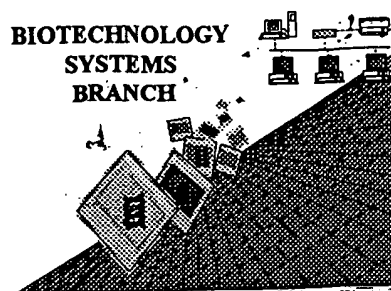


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/909,566
Source: O/PE
Date Processed by STIC: 8/2/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

OIEP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001
TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt
Output Set : N:\CRF3\08022001\I909566.raw

Does Nct Comply
Corrected Diskette Needed

3 <110> APPLICANT: Cahoon, Edgar B
5 <120> TITLE OF INVENTION: A Cytochrome P450 enzyme associated with the synthesis of ?
12-epoxy
6 fatty acids
8 <130> FILE REFERENCE: BB1465 US NA
10 <140> CURRENT APPLICATION NUMBER: US/09/909,566
11 <141> CURRENT FILING DATE: 2001-07-20
13 <150> PRIOR APPLICATION NUMBER: 60/219833
W--> 14 <151> PRIOR FILING DATE: July 21, 2000 2000-07-21 ← use this date format
16 <160> NUMBER OF SEQ ID NOS: 7
18 <170> SOFTWARE: Microsoft Office 97
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1733
22 <212> TYPE: DNA
23 <213> ORGANISM: Euphorbia lagascae
25 <400> SEQUENCE: 1
26 gcataaaagg aaaatggagc agaaaaatct ctcttttccg agcattttta taagttttct 60
27 gcttggttta atcttagtag tagtcatgag gttgtggaag aaacagaatc cactccagg 120
28 gccatggaag ttctctatca taggtaatct tctcattta ttactcactt ctgatctagg 180
29 ccatgaacgt ttttagagcct tggctcaaat ttatggacct gttatgagtc ttcaaattgg 240
30 ccaagtttca gctgttgtca tttcttcagc tgaagcagcc aaagaggtta tgaaaactca 300
31 ggctgatgcc ttgcaccaac gccctatcgt cttggacgca cagattgtgt ttataatcg 360
32 gaaagatgtc ttgtttgctt catatggaga tcaactggag cagatgaaga aaatttggat 420
33 acttgaattt ctgagtgcca aaaaagttca atctccagg ttaatccgag aggaagaaat 480
34 ggaggatgcc atcacattcc tccgttcgaa agccggatct ccggtcaata ttacaaagat 540
35 catttatggc attataattt cgatcatgat aagaacatcc gttggttaatt gtaagcaaaa 600
36 agaaagattg ctgagtgttg ccgatgcagt caatgaggca gcgacgagtt ttggcaccgc 660
37 agacgctttt ccgacgtgga aattacttca ctatatcatt ggagctgagt caaaacccag 720
38 gcgtttgcat caggagattg acgatatact tgaagagatt cttaatgaac acaaagccaa 780
39 taagcctttt gaagcggata acttaatgga tgttctattg aatcttcaaa aaaatggaaa 840
40 cgttccagtg ccagtgacaa acgaaagcat caaagcatcc gttttgcaaa tgtttactgc 900
41 cgggagcgaa acaacttcga aagctacaga atgggtaatg gcagagctga tgaaaaatcc 960
42 aactgaacta agaaaagcac aagaagaagt tagacaagta tttggtgaaa tgggaaaagt 1020
43 tgatgaatca agatttcatg atttgaaatt cttcaagtta gtggttaaag aaactctaag 1080
44 attacatcct ccggttgtct tgattccgag ggagtgtaga gaaacaacac gaattgatgg 1140
45 atatgaaatt catccgaaca ctogaattgt tgtgaatgct tgggcgatag gaagagatcc 1200
46 taatacttgg tcggaacctg gaaagtttaa ccagaaagg tttaaagatt gtgcaattga 1260
47 ttataaaggg acgacatttg aactgggtacc atttgggtgca ggaaaaagaa tatgtcctgg 1320
48 cattaactca gctattacca atttggagta tgtcattata aatctattat atcattttta 1380
49 ttgggaactg gccgatggaa ttacacctca aacacttgat atgactgaag ctattggcgg 1440
50 tgctctcagg aaaaaaatag atcttaagtt gattcctatt ccatatcaag ttagcttagg 1500
51 ctcaaataat tcttgattac ataggagggt tgaaatatat ataataaact ttaattaacg 1560
52 atgttctaata atgggttggg tgagttataa taggttttcc accgatcata taagtagcct 1620
53 tctttgatgg atgggttaga ttataatgag ttgtgggttg gattttttaga tgggttaaat 1680
54 gatttggatg gataataata aattgaaatg ttttctttt caaatccgaa aaa 1733
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 500
59 <212> TYPE: PRT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

60 <213> ORGANISM: Euphorbia lagascae

62 <400> SEQUENCE: 2

```

63 Met Glu Gln Lys Asn Leu Ser Phe Pro Ser Ile Leu Ile Ser Phe Leu
64   1           5           10           15
66 Leu Val Leu Ile Leu Val Val Val Met Arg Leu Trp Lys Lys Gln Asn
67           20           25           30
69 Pro Pro Pro Gly Pro Trp Lys Phe Pro Ile Ile Gly Asn Leu Pro His
70           35           40           45
72 Leu Leu Leu Thr Ser Asp Leu Gly His Glu Arg Phe Arg Ala Leu Ala
73           50           55           60
75 Gln Ile Tyr Gly Pro Val Met Ser Leu Gln Ile Gly Gln Val Ser Ala
76   65           70           75           80
78 Val Val Ile Ser Ser Ala Glu Ala Ala Lys Glu Val Met Lys Thr Gln
79           85           90           95
81 Ala Asp Ala Phe Ala Gln Arg Pro Ile Val Leu Asp Ala Gln Ile Val
82           100          105          110
84 Phe Tyr Asn Arg Lys Asp Val Leu Phe Ala Ser Tyr Gly Asp His Trp
85           115          120          125
87 Arg Gln Met Lys Lys Ile Trp Ile Leu Glu Phe Leu Ser Ala Lys Lys
88           130          135          140
90 Val Gln Ser Ser Arg Leu Ile Arg Glu Glu Glu Met Glu Asp Ala Ile
91 145           150          155          160
93 Thr Phe Leu Arg Ser Lys Ala Gly Ser Pro Val Asn Ile Thr Lys Ile
94           165          170          175
96 Ile Tyr Gly Ile Ile Ile Ser Ile Met Ile Arg Thr Ser Val Gly Asn
97           180          185          190
99 Cys Lys Gln Lys Glu Arg Leu Leu Ser Val Ala Asp Ala Val Asn Glu
100          195          200          205
102 Ala Ala Thr Ser Phe Gly Thr Ala Asp Ala Phe Pro Thr Trp Lys Leu
103          210          215          220
105 Leu His Tyr Ile Ile Gly Ala Glu Ser Lys Pro Arg Arg Leu His Gln
106 225           230          235          240
108 Glu Ile Asp Asp Ile Leu Glu Glu Ile Leu Asn Glu His Lys Ala Asn
109           245          250          255
111 Lys Pro Phe Glu Ala Asp Asn Leu Met Asp Val Leu Leu Asn Leu Gln
112           260          265          270
114 Lys Asn Gly Asn Val Pro Val Pro Val Thr Asn Glu Ser Ile Lys Ala
115           275          280          285
117 Ser Val Leu Gln Met Phe Thr Ala Gly Ser Glu Thr Thr Ser Lys Ala
118           290          295          300
120 Thr Glu Trp Val Met Ala Glu Leu Met Lys Asn Pro Thr Glu Leu Arg
121 305           310          315          320
123 Lys Ala Gln Glu Glu Val Arg Gln Val Phe Gly Glu Met Gly Lys Val
124           325          330          335
126 Asp Glu Ser Arg Phe His Asp Leu Lys Phe Phe Lys Leu Val Val Lys
127           340          345          350
129 Glu Thr Leu Arg Leu His Pro Pro Val Val Leu Ile Pro Arg Glu Cys
130           355          360          365
132 Arg Glu Thr Thr Arg Ile Asp Gly Tyr Glu Ile His Pro Asn Thr Arg

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

```

133      370      375      380
135 Ile Val Val Asn Ala Trp Ala Ile Gly Arg Asp Pro Asn Thr Trp Ser
136 385      390      395      400
138 Glu Pro Gly Lys Phe Asn Pro Glu Arg Phe Lys Asp Cys Ala Ile Asp
139      405      410      415
141 Tyr Lys Gly Thr Thr Phe Glu Leu Val Pro Phe Gly Ala Gly Lys Arg
142      420      425      430
144 Ile Cys Pro Gly Ile Thr Ser Ala Ile Thr Asn Leu Glu Tyr Val Ile
145      435      440      445
147 Ile Asn Leu Leu Tyr His Phe Asn Trp Glu Leu Ala Asp Gly Ile Thr
148      450      455      460
150 Pro Gln Thr Leu Asp Met Thr Glu Ala Ile Gly Gly Ala Leu Arg Lys
151 465      470      475      480
153 Lys Ile Asp Leu Lys Leu Ile Pro Ile Pro Tyr Gln Val Ser Leu Gly
154      485      490      495
156 Ser Asn Ile Ser
157      500
160 <210> SEQ ID NO: 3
161 <211> LENGTH: 502
162 <212> TYPE: PRT
163 <213> ORGANISM: Capsicum annum
165 <400> SEQUENCE: 3
166 Met Glu Ile Gln Phe Thr Asn Leu Val Ala Phe Leu Leu Phe Leu Ser
167 1      5      10      15
169 Ser Ile Ile Leu Leu Leu Lys Lys Trp Lys Thr Gln Lys Leu Asn Leu
170      20      25      30
172 Pro Pro Gly Pro Trp Lys Leu Pro Phe Ile Gly Ser Leu His His Leu
173      35      40      45
175 Ala Val Ala Gly Pro Leu Pro His His Gly Leu Lys Asn Leu Ala Lys
176      50      55      60
178 Leu Tyr Gly Pro Leu Met His Leu Arg Leu Gly Glu Ile Pro Thr Val
179 65      70      75      80
181 Ile Ile Ser Ser Pro Arg Met Ala Lys Glu Val Leu Lys Thr His Asp
182      85      90      95
184 Leu Ala Phe Ala Thr Arg Pro Lys Leu Val Val Ala Asp Ile Val His
185      100      105      110
187 Tyr Asp Ser Thr Asp Ile Ala Phe Ser Pro Tyr Gly Glu Tyr Trp Arg
188      115      120      125
190 Gln Ile Arg Lys Ile Cys Ile Leu Glu Leu Leu Ser Ala Lys Met Val
191      130      135      140
193 Lys Phe Phe Ser Ser Ile Arg Gln Asp Glu Leu Ser Met Met Val Ser
194 145      150      155      160
196 Ser Ile Arg Thr Met Pro Asn Phe Pro Val Asn Leu Thr Asp Lys Ile
197      165      170      175
199 Phe Trp Phe Thr Ser Ser Val Thr Cys Arg Ser Ala Leu Gly Lys Ile
200      180      185      190
202 Cys Arg Asp Gln Asp Lys Leu Ile Ile Phe Met Arg Glu Ile Ile Ser
203      195      200      205
205 Leu Thr Gly Gly Phe Ser Ile Ala Asp Phe Phe Pro Thr Trp Lys Met

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

```

206      210      215      220
208 Leu His Asp Val Gly Gly Ser Lys Thr Arg Leu Leu Lys Ala His Arg
209 225      230      235      240
211 Lys Ile Asp Glu Ile Leu Glu His Val Val Asn Glu His Lys Gln Asn
212      245      250      255
214 Arg Ala Asp Gly Gln Lys Gly Asn Gly Glu Phe Gly Gly Glu Asp Leu
215      260      265      270
217 Ile Asp Val Leu Leu Arg Val Arg Glu Ser Gly Glu Val Gln Ile Ser
218      275      280      285
220 Ile Thr Asp Asp Asn Ile Lys Ser Ile Leu Val Asp Met Phe Ser Ala
221      290      295      300
223 Gly Ser Glu Thr Ser Ser Thr Thr Ile Ile Trp Ala Leu Ala Glu Met
224 305      310      315      320
226 Met Lys Lys Pro Ser Val Leu Ala Lys Ala Gln Ala Glu Val Arg Gln
227      325      330      335
229 Val Leu Lys Glu Lys Lys Gly Phe Gln Gln Ile Asp Leu Asp Glu Leu
230      340      345      350
232 Lys Tyr Leu Lys Leu Val Ile Lys Glu Thr Leu Arg Met His Pro Pro
233      355      360      365
235 Ile Pro Leu Leu Val Pro Arg Glu Cys Met Lys Asp Thr Lys Ile Asp
236      370      375      380
238 Gly Tyr Asn Ile Pro Phe Lys Thr Arg Val Ile Val Asn Ala Trp Ala
239 385      390      395      400
241 Ile Gly Arg Asp Pro Glu Ser Trp Asp Asp Pro Glu Ser Phe Ser Pro
242      405      410      415
244 Glu Arg Phe Glu Asn Ser Ser Val Asp Phe Leu Gly Ser His His Gln
245      420      425      430
247 Phe Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Pro Gly Met Leu Phe
248      435      440      445
250 Gly Leu Ala Asn Val Gly Gln Pro Leu Ala Gln Leu Leu Tyr His Phe
251      450      455      460
253 Asp Arg Lys Leu Pro Asn Gly Gln Ser His Glu Asn Leu Asp Met Thr
254 465      470      475      480
256 Glu Ser Pro Gly Ile Ser Ala Thr Arg Lys Asp Asp Leu Val Leu Ile
257      485      490      495
259 Ala Thr Pro Tyr Asp Pro
260      500

```

263 <210> SEQ ID NO: 4

264 <211> LENGTH: 51

265 <212> TYPE: DNA

266 <213> ORGANISM: synthetic construct

268 <400> SEQUENCE: 4

269 tcaaggagaaa aaaaccccg atccatggag cagaaaaatc tctcttttcc g

51

272 <210> SEQ ID NO: 5

273 <211> LENGTH: 35

274 <212> TYPE: DNA

275 <213> ORGANISM: synthetic construct

277 <400> SEQUENCE: 5

278 ggccagtgaatgttaatacg actcactata gggcg

35

inserted - see item 10 on Euro Summary Sheet

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

281 <210> SEQ ID NO: 6
282 <211> LENGTH: 35
283 <212> TYPE: DNA
284 <213> ORGANISM: synthetic construct
286 <400> SEQUENCE: 6
287 gcggccgcga attcggaataa tggagcagaa aaatc 35
290 <210> SEQ ID NO: 7
291 <211> LENGTH: 35
292 <212> TYPE: DNA
293 <213> ORGANISM: synthetic construct
295 <400> SEQUENCE: 7
296 gcggccgcgg atccttagaa catcgtaaat taaag 35

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:34

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD